

The only specimen that I obtained was a female, which was captured alive and uninjured. A few days after its capture it gave birth to three naked young. These the mother promptly devoured, and she died three days later.

This specimen (see Pl. IV.), as preserved in formol, is 14 inches in length, exclusive of the tail, which measures about 13 inches in length.

The body and head are covered with sparse coarse hair, which is reddish ferruginous from the eyes to the shoulders and dusky brown on the rest of the body.

The hair becomes very thin and scattered on the hind-quarters, which for some distance on the back and sides are naked, roughly corrugated, and warty, with a sparse, short, woolly growth between the excrescences.

The legs, snout, and eyelids are naked, and, with the bare skin of the rump, are pinkish white. The ears are short, thin, rounded, and are bluish grey with light edges. The heavy rat-like tail is dark brown and naked. The claws are horn-colour. The front feet and claws are large, heavy, and mole-like, and well adapted to digging and tearing asunder rotten wood &c. They are much smaller in proportion than in the Cuban species, however. The snout is also more flexible than in *S. cubanus*, from which it also differs in the naked skin of the rump, the colour, size, and other characters.

XIV.—On Three new Mammals from British New Guinea.

By OLDFIELD THOMAS.

IN a further consignment of small mammals presented to the National Museum by Mr. C. A. W. Monckton, Resident in Northern British Guinea, there are examples of the two following new Rodents, one of them forming a new and most striking genus allied to *Hydromys*, but even more highly specialized for an aquatic life.

The collection also contains specimens referable to *Macroglossus australis*, *Pseudochirus corinnæ* and *Forbesi*, and *Phalanger carmelite*, all being valuable acquisitions to the Museum.

In determining the last-named animal, a new *Phalanger* allied to it has been noticed and is now described. It was obtained by Mr. A. Meek.

CROSSOMYS, gen. nov. (Hydromyinae).

A highly specialized aquatic form. Fur thick, soft, and

very woolly. Ear-conches practically aborted, a mere rudiment, 1-2 mm. in length, being all that is left of them. Whiskers not so thick or long as in the allied forms. Fingers free, toes rather more broadly webbed than in *Hydromys*; claws, both fore and hind, small, delicate, strongly curved; hind feet broad, more twisted than in *Hydromys*, those of *Parahydromys* * being less so; sole-pads broad and smooth, a large part of the elongate hallucal pad visible in an upper view of the foot. Tail provided with a strongly marked swimming-fringe below, formed of hairs about 8 mm. in length, the fringe bifurcating into two lateral ridges on the proximal inch of the short-haired part of the tail.

Skull with a proportionally short slender face and very large, smoothly rounded, broad and low brain-case. The distance from the supraorbital foramina to the occiput is therefore greater instead of less than that to the tip of the muzzle. Nasal and interorbital region slightly built, not broadly swollen as in *Parahydromys*. Cranial ridges practically absent. Interparietal sutures almost obsolete in the type, which is an old specimen. Structure of ante-orbital and palatal foramina as in *Hydromys*, the latter not so far forward as in *Parahydromys*. Bullae very small, in correlation with the abortion of the external ear-conches.

Dentition as in *Hydromys*. Upper incisors narrow, considerably bevelled laterally. Molars small in proportion to the size of the animal; in structure like those of *Hydromys* except that the laminae are more directly transverse and the middle lamina of m^1 is scarcely broadened internally.

Type *Crossomys Moncktoni*.

This beautiful animal forms a most striking new genus, and Mr. Monckton is to be congratulated on its discovery. In specialization for an aquatic life it far surpasses *Hydromys*, as indicated by its woolly fur, aborted ear-conches, twisted hind feet, and fringed tail, in which last character it resembles the European water-shrew (*Neomys*, long known as *Crossopus*). Indeed in the accumulation of these characters it stands at the head of all rodents, for while *Fiber* has an even more specialized tail and the same fur and feet, it has retained its ear-conches. Perhaps the nearest analogue to

* Described as *Limnomys*, Ann. & Mag. N. H. (7) xvii. p. 325 (1906). This name being preoccupied (Mearns, 1905) the genus was given (*Zool. Anz.* xxx. p. 326, 1906) the clumsy name of *Parahydromys* by Poche, to whom a perusal of page 14 line 10 of the Stricklandian Code of Nomenclature (1863) is to be recommended. My own substituted name of *Drosomys* (P. Biol. Soc. Wash. xix. p. 199, 1906) was a few months later in date.

Crossomys, both in structure and habits, is *Anotomys*, from the torrents of the high Andes, which has altogether lost its ear-conches, has equally aquatic fur and feet, but in which the tail, although longer-haired below, has not such a specialized swimming-fringe.

The structural modifications of the Beaver are of so different a nature as hardly to come into the comparison.

Crossomys Moncktoni, sp. n.

Size considerably less than in *Hydromys*. Fur soft and glossy, the comparatively sparse longer fur of the back about 18 mm. in length, the wool-fur very thick, soft, and close, about 10–11 mm. in length, resembling that of *Fiber*.

General colour above grey (grey no. 6), washed on the back with pale yellowish olivaceous, the longer hairs with black tips and isabella subterminal rings; the wool-hairs silvery white or greyish white for seven-eighths their length, their tips black. Under surface silvery white, the line of demarcation well-marked, high up on the sides, the hairs white to their bases or very faintly greyer below the tips. A narrow line down front side of arms like back, the remainder white; upper surface of hands pale brown, the fingers naked. Feet practically naked, the few minute hairs glossy white. Tail grey throughout on the short-haired part, the swimming-fringe white.

Skull and teeth as described above.

Dimensions of the type (measured in the skin):—

Head and body 205 mm.; tail 220; hind foot (wet) 48.

Skull: greatest length 40·5; basilar length 31·5; zygomatic breadth 22·2; nasals 11·4 × 5; interorbital breadth 5·8; breadth of brain-case 19·7; height of brain-case from basion 12; palatilar length 17·3; diastema 10·8; palatine foramina 5; length of upper tooth-row 5·3, of m^1 4·2.

Hab. Serigina, Brown River, N.E. British New Guinea. Altitude "not less than 4500 ft."

Type. Adult female. B.M. no. 7. 5. 22. 3. Original number 36. Collected 12th October, 1906, and presented by C. A. W. Monckton, Esq.

"Iris dark brown. Caught while swimming down a rapid creek."—C. A. W. M.

Uromys anak, sp. n.

A very large species with a wholly black tail.

Size largest of the genus. Fur harsh; longer hairs of back 28–31 mm. in length, underfur about 20 mm. General

colour coarsely mixed grey-brown, becoming bistre on the middle back and rufous or burnt-umber on the rump. When first appearing the hairs of the fore-back at least are really grey, that is ringed with black and white, but owing to the bleaching of the black to brown, and of the white to buffy white, the general tone soon approaches bistre. Under surface mixed brown and whitish, without sharp line of demarcation, most of the hairs brown with whitish tips, but a certain number along the median area white to their bases. Muzzle and chin dark brown. Ears short, naked. Arms grizzled brown, like body, the inner aspect rather lighter; upper surface of hands reddish brown. Hind legs dark rufous, becoming brown on the metatarsals; toes naked, except for the few brown hairs at the roots of the claws. Tail long, of the usual *Uromys* structure, wholly black, except for the short basal furry portion, which is deep reddish.

Skull large and heavy, but otherwise as in the other members of this group. The molar series markedly longer than in any other species.

Dimensions of the type (measured on the skin):—

Head and body 310 mm.; tail 400; hind foot (wet) 69; ear (wet) 24.

Skull: palatilar length 38.5; nasals 27×8.6 ; interorbital breadth 10.3; diastema 23.5; palatine foramina 7.3; upper molar series (crowns) 14.2.

Hab. Ifogi, Brown River, N.E. British New Guinea. Altitude "not less than 4000 ft."

Type. Old male. B.M. no. 7. 5. 22. 2. Original number 27. Collected 2nd October, 1906, and presented by C. A. W. Monckton, Esq.

"Iris dark brown. Native name 'Felek.' A ground animal, living in burrows, though occasionally found in the hollow of a leaning tree."—C. A. W. M.

Under the names of *Uromys validus**, *Hapalotis papuanus*†, and *Mus barbatus*‡, three members of this group of the genus have been described from South-eastern New Guinea, though it is possible that all of these names, or either two of them, may be synonymous with each other. I have examined the types of the first and third, and find that their upper molar series measure 11.3 and 11 mm. respectively, and each of these has the terminal portion of the tail yellow.

The case of "*Hapalotis papuanus*" is not so clear, for nothing

* Peters & Doria, Ann. Mus. Genov. xvi. p. 703 (1881).

† Ramsay, P. Linn. Soc. N.S.W. viii. p. 18 (1883).

‡ Mihe-Edwards, Bull. Mus. Paris, 1900, p. 167.

is said as to the colour of the tail, and the skull and tooth-measurements are quite inconsistent with each other. However, both upper and lower tooth-series are said to be "0.49 in." (= 12.5 mm.), and if this be taken as correct the size of the animal would be little larger than in *U. validus*, and considerably smaller than in *U. anak*.

Phalanger sericeus, sp. n.

A dark brown species like *Ph. carmelitæ*, the fur very long and silky.

Size and general characters as in *Ph. carmelitæ*, to which the specimen had been hitherto referred. Fur very much longer than in that species (hairs of back about 38 mm. in length instead of 27 or 28), exceedingly soft and silky, quite unlike the rather coarse close fur of the allied species. Colour essentially as in *carmelitæ*, chocolate-brown above and pure sharply defined white below, but the brown above is darker and more glossy, resulting from the comparative silkiness of the hairs. The median dorsal area blacker than the sides, but no defined stripe perceptible. A patch of paler brown just above the base of the tail. Ears very small, thickly clothed internally as well as externally with short brown hairs. Tail with the proportions of the hairy and naked portions about as in *Ph. carmelitæ*, but the proximal part of the latter is smoother and less shagreened.

Skull and teeth very much as in *Ph. carmelitæ*, except that the secators, both above and below, are less developed, their apical ridge, which has three or four distinct crenulations in *carmelitæ*, reduced above to an indistinctly bifid point, and below to an undivided one. Molars rather narrower than in *carmelitæ*. Coronoid process of lower jaw rather higher and less slanted backwards than in the allied species.

Dimensions of the type (measured in skin):—

Head and body 455 mm.; tail 310; naked part of tail above 170; hind foot (s. n.) 57.

Skull: basal length 75; greatest breadth 51; greatest diameter of upper secator 4.3; combined length of three anterior molariform teeth 16.5.

Hab. Owgarrá, Angabunga River (near the Aroa River), S.E. New Guinea. Altitude 6000'.

Type. Adult male. B.M. no. 5. 11. 28. 23. Collected 30th October, 1904, by Mr. A. Meek. One specimen.

This *Phalanger* was placed on arrival with *Ph. carmelitæ*, but the further material since received from Messrs. Monckton and Meek shows the Angabunga specimen to represent quite a distinct form.